PART 9

OCCUPATIONAL HEALTH

CHAPTER 1 - ASBESTOS MANAGEMENT

1-1 PURPOSE

The purpose of an asbestos management program is to minimize exposure of all building occupants to asbestos fibers. Through supervised work practices, asbestos-containing materials can be managed in place.

1-2 SCOPE

A comprehensive asbestos management program shall include:

* The asbestos program manager,
* Inspecting and assessing the building,
* Developing an asbestos management program manual,
* Implementing and managing an asbestos management program,
* Selecting and implementing alternative abatement actions,
* Formulating a plan of training
* Cleaning and work practices
* Surveying and monitoring asbestos containing materials

1-3 BACKGROUND

A. This chapter is a summary of the Environmental Protection Agency's (EPA's) policy released in August 1990, known as: ***Managing Asbestos In Place: a Building Owner's Guide to Operations and Maintenance Programs for Asbestos-Containing Materials (ACM)***, also know as the EPA "Green Book". The Green Book emphasizes "in-place management" of asbestos rather than its wholesale removal.

B. Each installation should have an asbestos management program in place. The Area Facilities Engineer, Facilities Managers, and craftsmen should understand the requirements of the program(s) written for their installation. If an asbestos management program does not exist for each installation, the Area facilities engineer should work with the Area Office of Environmental Health and Engineering to begin a program for each installation.

1-4 OPERATIONS AND MAINTENANCE (O&M) PROGRAM

A. THE ASBESTOS PROGRAM MANAGER - The Area Facilities Engineer and Facilities Managers should work closely with their asbestos

program manager (each installation should have a designated asbestos program manager). In instances where the Facilities Manager is assigned the responsibility of being the asbestos program manager he or she must receive the training necessary to develop and manage an asbestos management program **prior** to beginning the job. The EPA stresses the need for the asbestos program manager to be properly qualified, through training and experience, and to be actively involved in **all** asbestos-control activities. EPA accreditation under the Asbestos Hazard Emergency Response Act (AHERA) or state certification as a Building Inspector/ Management Planner is required. The asbestos program manager will either train building workers in asbestos management techniques or ensure that such worker training takes place. In addition, he or she should oversee the custodial and maintenance staffs, contractors, and outside service vendors for all asbestos-related activities.

B. BUILDING INSPECTION AND ASSESSMENT - The asbestos program manager will update the initial building inspection to keep current information of the location and condition of all ACM in the building. A trained, experienced and qualified inspector, who is able to perform the sampling of suspect ACM for laboratory analysis, should conduct the inspection. Where ACM is found, the material's characteristics, condition, quantity, and location within the building, as well as building use, will affect how the asbestos program manager should deal with the ACM. For example asbestos management procedures may be appropriate and sufficient in a particular building for ACM in good condition. But asbestos management procedures alone are not sufficient for ACM that the inspector determines is significantly damaged, and may not be sufficient for some types of ACM situated in highly accessible areas.

C. DEVELOPING AN ASBESTOS MANAGEMENT PROGRAM - Either the asbestos program manager or a qualified consultant should develop the asbestos management manual. The written asbestos management program should state clearly the policies and procedures for each installation, identify and describe the administrative line of authority for each installation, and should clearly define the responsibilities of key participants, such as the asbestos program manager and custodial and maintenance supervisors and staff. The written asbestos program manual should be available and understood by all participants involved in the management and operation of the building.

D. IMPLEMENTING AND MANAGING AN ASBESTOS MANAGEMENT PROGRAM - When managing an asbestos management program, the asbestos program manager should oversee all asbestos-related activities. In instances where portions of the custodial and maintenance responsibilities are contracted out, the asbestos program manager should ensure that the contractor is qualified to conduct work that may involve asbestos-containing material. Before awarding a contract, the asbestos program manager should investigate to determine whether the contractor's staff is qualified, trained and equipped to deal with asbestos activities. The asbestos

program manager should also monitor other contractors, such as electricians and plumbers, who might inadvertently disturb ACM.

E. The asbestos program manager should routinely and frequently check the work being performed in the building by the maintenance staff to see if their work is disturbing ACM. By maintaining close surveillance over these activities, the asbestos program manager can help ensure that work which may disturb ACM is being done safely. In addition, the asbestos program manager should periodically review written asbestos management manuals to determine whether they need to be updated. For example, if all ACM were removed from some areas of the building during a recent renovation, or if some ACM was damaged, the asbestos management program should be revised accordingly. The asbestos management program should remain in effect as long as there is ACM present in the building.

F. SELECTING AND IMPLEMENTING ALTERNATIVE ABATEMENT ACTIONS - In some instances, due to the condition of ACM or upcoming building renovations, the asbestos program manager may decide to take other abatement actions to deal with ACM in the building. These response actions could include encapsulation (covering the ACM with a sealant), enclosure (placing an air-tight barrier around the ACM, encasement (covering the ACM with a hard-setting sealing material), repair, or removal of the ACM. When determining which response alternative to select, the asbestos program manager may consider seeking advice from qualified, independent consultants with specific training and experience in asbestos management.

G. FORMULATING A PLAN OF TRAINING - The asbestos program manager will either train building workers in asbestos management techniques or ensure that such worker training takes place. See Section 1-5 - TRAINING REQUIREMENTS

H. CLEANING AND WORK PRACTICES - An asbestos management program should include specific direction on how to deal with each of the following general categories pertaining to ACM:

(1) Surfacing Materials - Examples include ACM sprayed or troweled onto surfaces, such as decorative plaster on ceilings, or fire-proofing materials on structural members.

(2) Thermal System Insulation - Examples include ACM applied to pipes, boilers, tanks, and ducts to prevent heat loss or gain, or condensation.

(3) Miscellaneous Material - Examples include asbestos-containing ceiling or floor tiles, textiles, and other components such as asbestos-cement panels, asbestos siding and roofing materials.

Asbestos work practices and procedures should be developed by **trained personnel** to include accidental and planned disturbance, building cleaning, maintenance, renovation, and general operational activities.

I. SURVEYING AND MONITORING ASBESTOS CONTAINING MATERIALS - The Asbestos Management Program should contain a description of the following elements for surveying and monitoring asbestos containing materials.

(1) Notification - A program to tell workers, tenants, and building occupants where ACM is located, and how and why to avoid disturbing the ACM. All persons affected should be properly informed.

(2) Surveillance - Regular surveillance to note, assess asbestos containing material, and document changes in condition.

(3) Controls - Work permit system to control activities which might disturb ACM.

(4) Work Practices - Asbestos management work practices to avoid or minimize fiber release during activities affecting ACM.

(5) Recordkeeping - To document asbestos management activities.

(6) Worker Protection - Medical and respiratory protection programs, as applicable. This chapter should explain the OSHA standards, such as the requirement for the establishment of a medical surveillance program for all employees who may be exposed to asbestos above the action level of 0.1 (f/cc) for 30 days or more per year.

(7) Monitoring

1-5 TRAINING

The asbestos program manager will ensure that three levels of training be provided as outlined below:

A. LEVEL 1 AWARENESS TRAINING - For custodians involved in cleaning and simple maintenance tasks where ACM may be accidentally disturbed.

For example, fixing a light fixture in a ceiling covered with surfacing ACM. Such training may range from two to eight hours, and may include such topics as:

Background information on asbestos.

Health effects of asbestos.

Worker protection programs.

Locations of ACM in the building.

Recognition of ACM damage and deterioration.

The asbestos management program for that building.

Proper response to fiber release episodes.

B. LEVEL 2 SPECIAL TRAINING - For maintenance worker involved in general maintenance and asbestos material repair tasks.

For example, a repair or removal of a small section of damaged asbestos insulation, or the installation of conduit in an air plenum containing ACM or ACM debris. Such training generally involves at least 16 hours. This level of training usually involves more detailed discussions of the topics included in Level 1 training as well as:

Federal asbestos regulations.

Proper asbestos-related work practices.

Descriptions of the proper methods of handling ACM including waste handling and disposal.

Respirator use, care, and fit-testing.

Protective clothing donning, use, and handling.

Hands-on exercise for techniques such as glove-bag work and HEPA vacuum use and maintenance.

Appropriate and proper worker decontamination procedures.

C. LEVEL 3 ABATEMENT WORKER TRAINING - For workers who may conduct asbestos abatement.

For example, conducting a removal job, constructing an enclosure, or encapsulating a surface containing ACM. This work involves direct, intentional contact with ACM. The recognized "abatement worker" training courses approved by EPA or states, under the EPA Asbestos Hazard Emergency Response Act (AHERA) model accreditation plan for schools, which involve 24 to 32 hours of training, would fulfill this level of training. This level of training would typically include:

Pre-asbestos abatement work activities.

Work area preparation.

Establishing decontamination units.

Personal protection, including respirator selection, use, fit-testing, and protective clothing.

Worker decontamination procedures.

Safety considerations in the abatement work area.

A series of practical hands-on exercises.

Proper handling and disposal of ACM wastes.

The asbestos program manager should consider conducting the training program for Levels 1 and 2 if he or she has sufficient specific asbestos knowledge and training. A trained industrial hygienist or equally qualified safety and health professional should conduct the training on respirator use and fit-testing. Occupational Safety and Health Administration (OSHA) or EPA Regional Offices may be able to suggest courses of direct the program manager to listings of training providers for each of the three levels.

The service unit Facilities Manager should maintain training records for each of his employees until one year past the last date of employment of the employee. This is an OSHA requirement.

1-6 REGULATIONS

There are several important OSHA and EPA regulations that are designed to protect workers. They are summarized here, as guidance.

A. OSHA has specific requirements concerning worker protection and procedures used to control ACM. These include:

OSHA Construction Industry Standard for Asbestos (29 CFR 1926.58), which applies to O&M work.

OSHA General Industry Asbestos Standard (29 CFR 1910.1001)

OSHA Respiratory Protection Standard (29 CFR 1910.134).

B. The EPA has the following regulations:

EPA Worker Protection Rule (40 CFR 763 Subpart G)

EPA National Emission Standard for Hazardous Air Pollutants (NESHAP)(40 CFR 61 Subpart M).

EPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR 763 Subpart E).

EPA Asbestos Ban and Phaseout Rule (40 CFR 763 Subpart I).

1-7 CONCLUSION

A formal asbestos-management program that does two things:

- Ensures that the day-to-day management of a facility is carried out to minimize the release of asbestos fibers into the air.
- Ensures that when fibers are released-either accidentally or intentionally - proper control and cleanup procedures are used.

As such, a sound asbestos-management program may be all that is necessary to control the release of asbestos fibers - at least until asbestos-containing materials are scheduled to be disturbed by renovation, new construction or demolition activities. At that point, asbestos can be removed more safely and more cost-effectively.